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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/070,818	05/29/2002	Hermanus Johannes Waanders	220664US6PCT	9369

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OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

MACARTHUR, VICTOR L

ART UNIT

PAPER NUMBER

3679

DATE MAILED: 01/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/070,818

Applicant(s)

WAANDERS, HERMANUS
JOHANNES

Examiner

Victor MacArthur

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 May 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

The disclosure is objected to as failing to comply with 37 CFR 1.77(c) for not including section headings.

Claim Objections

Claims 2-4 and 10 are objected to because of the following informalities:

The phrase “centres” in line 3 of claim 2, line 2 of claim 3 and line 4 of claim 10 appears to be a typographical error. The examiner suggests replacing the above-mentioned phrase with “centers”.

The phrase “that” in line 4 of claim 2 appears to be a typographical error. The examiner suggests omitting this phrase from the claim.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The limitations “the defined support” (line 2 of claim 1), “the angle” (line 4 of claim 3), “the second triangle” (lines 4-5 of claim 3), “the three connecting lines” (line 2 of claim 4) and

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“the two centers” (line 3 of claim 4) are recited. There is insufficient antecedent basis for these limitations in the claims.

The phrase “at least virtually sphere-segment shaped extremities” is recited in lines 5 & 8 of claim 1. It is unclear how many elements the phrase “at least” refers to.

It is unclear if the phrase “protrusions” in line 2 of claim 2 refers to the “protrusions” in line 4 of claim 1 and if the phrase “pairs of protrusions” in line 5 of claim 2 refers to the “pairs of protrusions” in line 7 of claim 1.

It is unclear what elements the phrases “a pair” (line 3 of claim 3) and “the protrusions” (line 2 of claim 5) refer to.

The phrase “and/or”, which appears in line 1 of claim 9, renders the claim indefinite because it is unclear what subject matter the applicant regards as the invention.

It is unclear what the phrase “reproducible supporting” in line 1 of claim 10 refers to.

For the reasons mentioned above a great deal of confusion and uncertainty exists as to the proper interpretation of the limitations of claims 3 and 4. In accordance with the MPEP § 2173.06, rejection under 35 U.S.C. 102 or 35 U.S.C. 103 of claims 3 and 4 as currently written would be improper since doing so would require considerable speculation about the meaning of terms employed in the claims and assumptions as to the scope of the claims. However, references have been cited with this office action in order to give the applicant a better appreciation for relevant prior art.

Claim Rejections - 35 USC § 102

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2 and 5-9 are rejected under 35 U.S.C. 102(b) as being anticipated by USPN 4290574 to Archibald.

Claim 1. Archibald discloses (figs.1, 4, 5) an assembly comprising a first object (26) and a second object (10), and means for supporting the first object on the second object, the means including three individual protrusions (32, 34, 36), characterized in that the individual protrusions are provided with at least one virtually sphere-segment shaped extremity, that the means also include three pairs of protrusions (members 18 nearest to 14; 22 and member 18 furthest from 14; both members 20), combining with the individual protrusions, which are likewise provided with at least one virtually sphere-segment shaped extremity (18), and that in an operational condition each individual protrusion of the one object contacts a corresponding pair of protrusions of the other object.

Claim 2. Archibald discloses (figs. 1, 4, 5) that the first object is provided with the three individual protrusions, the centers of their sphere-segment shaped extremities defining a first triangle (with corners 32, 34, 36), the second object is provided with the three pairs of protrusions, the three pairs defining a second triangle (with corners at 18, 20, 22) which at least virtually corresponds with the first triangle, and that in an operational condition each individual protrusion of the first object rests on the corresponding pair of protrusions of the second object.

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Claims 5 and 6. Archibald discloses (figs. 1, 4, 5 and col.3, l.37 – col.4, l.3) that protrusions (32, 34, 36) are formed by metal balls having equal diameters, which are partially incorporated in the first object (26).

Claims 7 and 8. Archibald discloses (figs. 1, 4 and col.2, ll.63-68) means (14) including a screwed connection (threaded post and nut) provided for the mutual fastening of the combined objects.

Claim 9. Archibald discloses (figs.1, 4, 5) an object (30) provided with individual protrusions (32, 34, 36) suitable for application in an assembly according to claim 1.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 4290574 to Archibald in view of USPN 5416969 to Miura.

Archibald discloses (figs. 1, 4, 5) a method for supporting a first object (26) on a second object (10) by securing three metal balls to the first object (col.3, l.37-col.4, l.3), the centers of the metal balls extremities defining a first triangle, characterized in that in the second object three pairs of protrusions (members 18 nearest to 14; 22 and member 18 furthest from 14; both

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members 20) are secured, the three pairs defining a second triangle which is at least virtually similar to the first triangle, the three balls of the first object then being placed on the three pairs of protrusions of the second object. Archibald does not explicitly disclose that all of the protrusions are metal balls or that the balls and protrusions are secured by making holes into the first and second objects and then fitting the balls and protrusions into the holes. Miura teaches (figs.3, 9a, 9b) making holes (16, 18a) in an object (12) and then fitting metal balls (6) into the holes. Miura states (col.6, ll.27-29) that protrusions that are metal balls, when fit within holes of an object, provide for a large contact area between the protrusion and the object. Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the method of Archibald such that all of the protrusions are metal balls and all metal balls are secured by making holes into the first and second objects and then fitting the metal balls into the holes. Motivation to do so comes from Miura's teaching to increase contact area between protrusions and objects.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor MacArthur whose telephone number is (703) 305-5701. The examiner can normally be reached on 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne can be reached on (703) 308-1159. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9326 for regular communications and (703) 872-9327 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

VLM

VLM

January 7, 2003

Lynne H. Browne

Lynne H. Browne
Supervisory Patent Examiner
Technology Center 3600